

SEWRPC Staff Memorandum

AMENDMENT TO YEAR 2010 RACINE COUNTY JURISDICTIONAL HIGHWAY SYSTEM PLAN AND REGIONAL TRANSPORTATION SYSTEM PLAN WITHIN THE CITY OF BURLINGTON

INTRODUCTION

At the request of the City of Burlington, the Regional Planning Commission staff conducted a review of the arterial street and highway system recommendations for the Burlington area of the year 2010 regional transportation system plan and Racine County jurisdictional highway system plan. The year 2010 regional transportation system plan and Racine County jurisdictional highway system plan recommendations for the Burlington area are shown on Map 1. The only plan recommendations for improvement and expansion of highway capacity is the construction of a bypass around the eastern and southern sides of the Burlington area. The bypass is further recommended to be the route of all state trunk highways serving the Burlington area, including STH 36, STH 11, and STH 83.

The review of the regional and county plan recommendations was requested as the City was considering a riverfront redevelopment project bounded approximately by Bridge Street on the north, the Fox River on the east, Adams Street on the south, and Calumet Street on the west. The redevelopment project provided the potential to convert Calumet Street to an arterial street and thereby add arterial street traffic carrying capacity. Concerns have been expressed for many years by City of Burlington officials over the existing one-way arterial street pattern in the City. Even with the ultimate construction of a bypass, such one-way operation may still be expected to be warranted. The City of Burlington requested that the Commission staff review whether Calumet Street from approximately Bridge Street to Adams Street should be added to the regional plan as an arterial facility, and to assess whether this would permit the elimination of the one-way street system of Pine Street and Dodge Street.

Concerns have also been expressed for several years over the lack of a grade separation with the Wisconsin Central Transportation Corporation Railway line on any arterial street in the City of Burlington. The City requested that the Commission staff review the provision of such a grade separation with Calumet Street or with existing STH 11 on existing or new alignment.

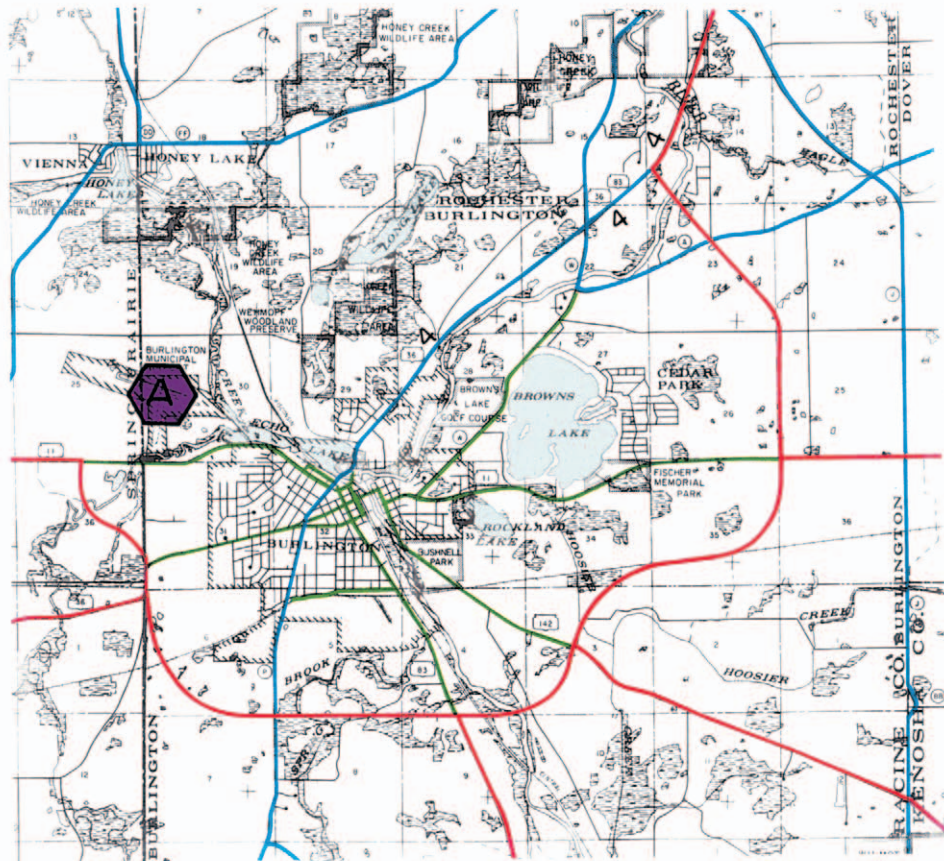
Lastly, the City of Burlington requested that the Commission staff review the route of the existing STH 11 bridge over the Fox River, and the one-way pair of Chestnut Street and Commerce Street which is the route of STH 11 west of the City of Burlington central business district.

ADDITION OF CALUMET STREET TO REGIONAL AND COUNTY PLANS

Map 2 displays estimated 1996 average weekday traffic volumes on arterial streets in the Burlington area, and forecast year 2010 arterial street average weekday traffic volumes under the adopted regional transportation system plan and county jurisdictional highway system plan. The combined traffic volumes on the one-way segments of Pine Street and Dodge Street under current and future conditions indicate that a single two-lane two-way arterial would provide inadequate traffic carrying capacity under current and future conditions. The addition of Calumet

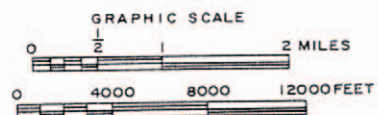
Map 1

YEAR 2010 REGIONAL TRANSPORTATION SYSTEM PLAN AND
RACINE COUNTY JURISDICTIONAL HIGHWAY SYSTEM PLAN
FOR THE BURLINGTON AREA



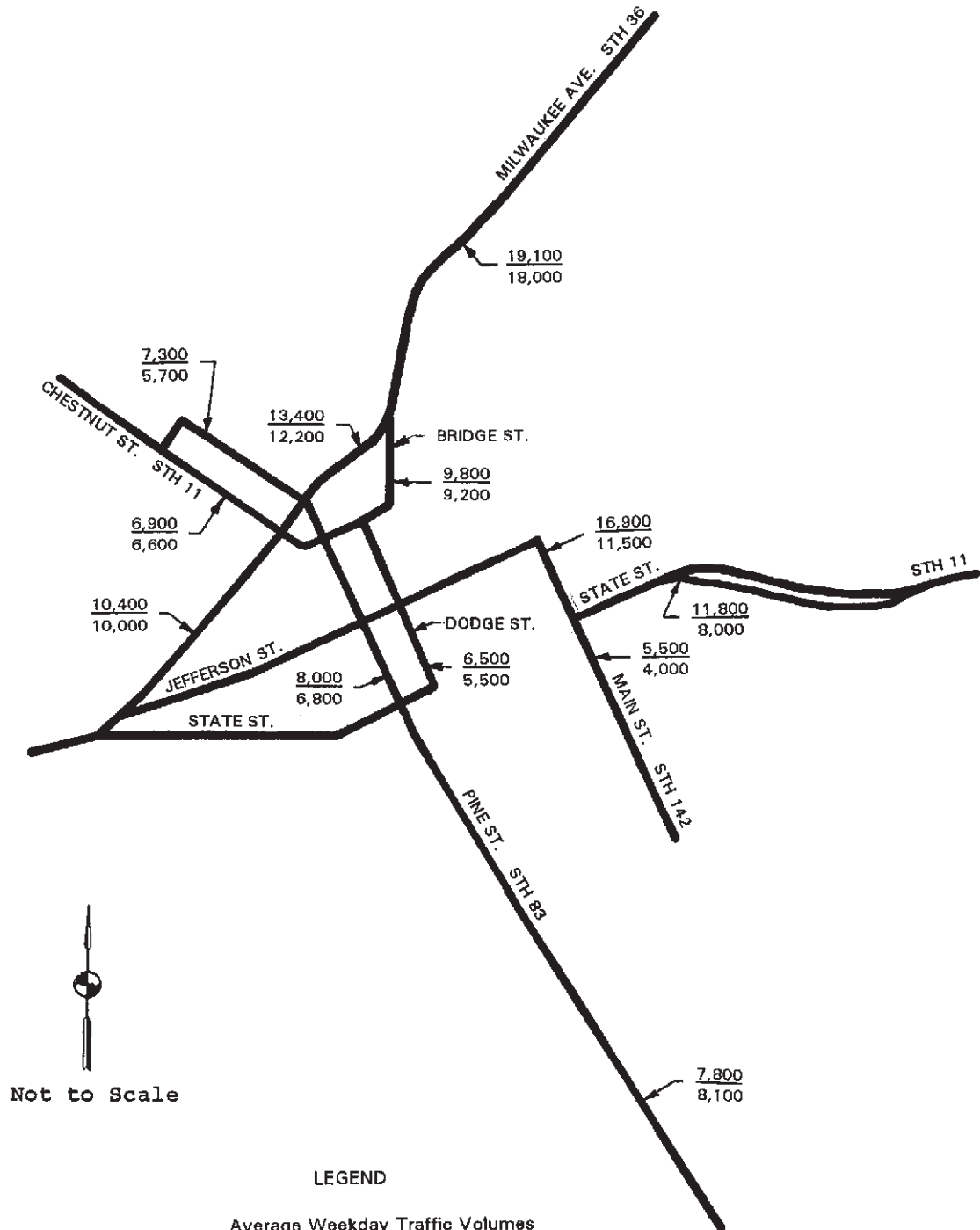
LEGEND

- State Trunk Highway
- County Trunk Highway
- Local Trunk Highway
- 4 Number of Traffic Lanes
 (Two Where Unnumbered)



Map 2

EXISTING YEAR 1996 AND FUTURE YEAR 2010 AVERAGE WEEKDAY TRAFFIC VOLUMES
ON THE BURLINGTON AREA ARTERIAL STREET SYSTEM



Not to Scale

LEGEND

Average Weekday Traffic Volumes

5,500 Existing 1996
7,900 Future Year 2010

Source: SEWRPC

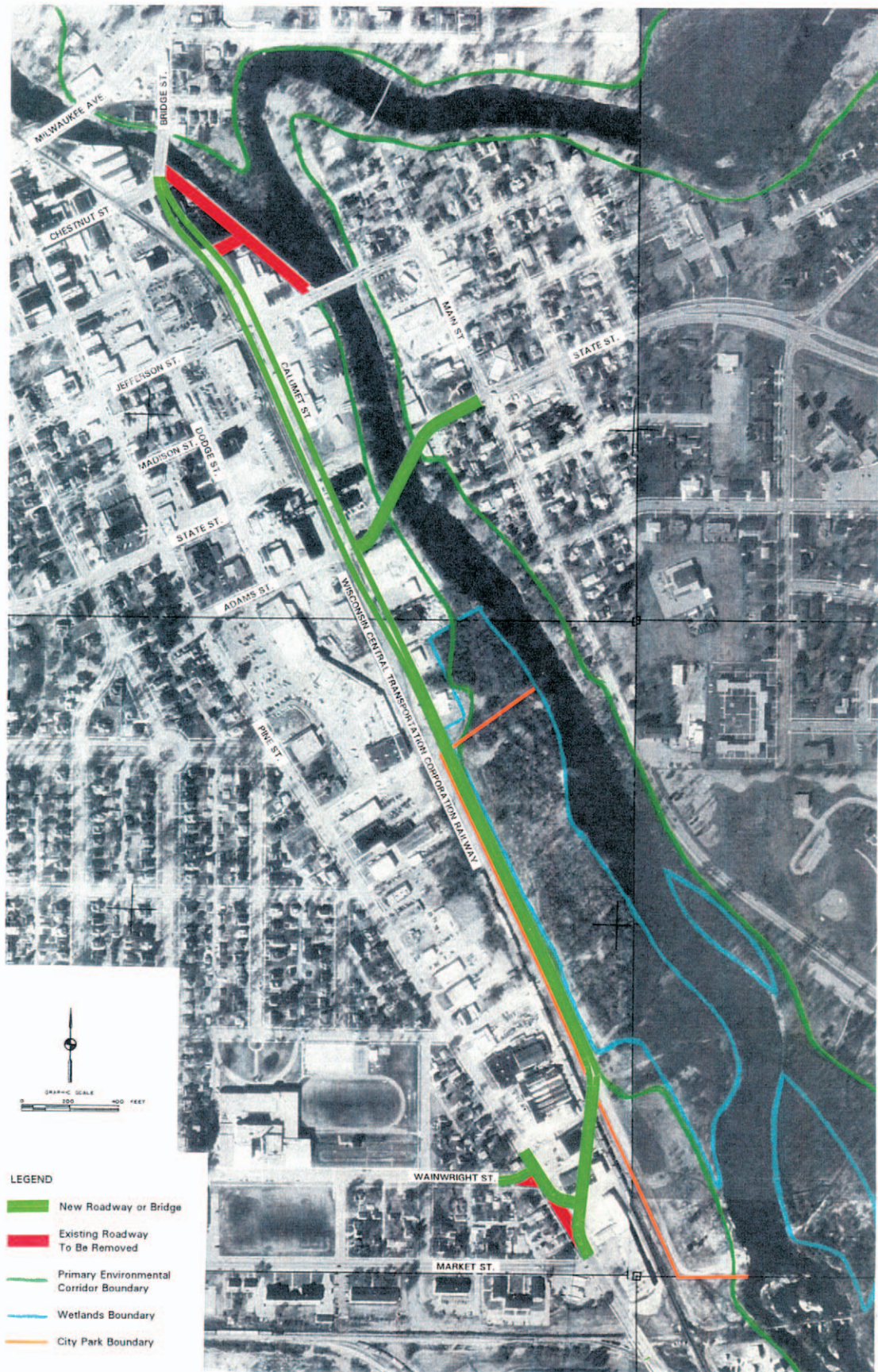
Street as an arterial street in the City of Burlington may be expected to reduce traffic volumes sufficiently on Pine Street and Dodge Street to permit operation of those facilities as either two-lane two-way arterials or non-arterial streets. The City of Burlington's concept for Calumet Street as part of its redevelopment project would be for that facility to operate as a four traffic lane divided arterial. Under that redevelopment concept, Calumet Street would extend from Bridge Street to Adams Street.

The Commission staff reviewed the further extension of Calumet Street to the south and the direct connection of Calumet Street with Pine Street at about Market Street. A grade separation would be provided between Calumet Street and the Wisconsin Central Transportation Corporation Railway as part of this Calumet Street extension. This connection and extension, as shown in Figure 1, would further promote Calumet Street as the principal north-south arterial in the City, as it would directly connect with Pine Street--the principal north-south route leading to the City--and it would include a railway grade separation. Different alternatives to provide this grade separation were reviewed, with respect to tunnels and overpasses, and also different locations. The alternative that may be the most feasible is shown on Figure 1 and would provide a structure to carry Calumet Street over the railway line and would directly connect the Calumet Street extension to Pine Street at Market Street. The estimated construction cost of this grade separation is \$2.7 million. It may require the acquisition of one residence and three businesses and have impacts on the park lands and wetlands generally located in a primary environmental corridor adjacent to the Fox River and on the Fox River floodway. The estimated construction cost of the improvement of Calumet Street from Bridge Street to Adams Street is \$0.8 million, and for its extension from Adams Street to the grade separation is \$0.8 million. A preliminary engineering study will be necessary to consider the potential alternatives in more detail and to ultimately determine the preferred alignment, type of grade separation, and impacts of this roadway extension and grade separation.

Other alternatives to provide a grade separation of the Wisconsin Central Transportation Corporation Railway line were reviewed, including providing the grade separation over the railway line on the routing of STH 11. This alternative was examined in the preliminary engineering study of a bypass serving the Burlington area recently completed by the Wisconsin Department of Transportation (WisDOT). The specific alignment considered in the WisDOT study would have routed STH 11 directly along State Street both east and west of the Fox River. STH 11--State Street--would be elevated over the Fox River, Calumet Street, and the railway line, and would have an at-grade intersection with Pine Street. Dodge Street would terminate at State Street as there would be inadequate clearance to carry State Street over Dodge Street. There would likely be no access to State Street between Dodge Street and Pine Street. The estimated construction cost of this alternative is \$2.7 million, and it was estimated to require acquisition of three residences, one institutional building, and four businesses. A disadvantage of this railway grade separation alternative is that it would be elevated over Calumet Street which would be the principal north-south arterial in the Burlington area. In addition, the provision of an elevated structure on State Street would divide, and not be compatible with, the proposed riverfront redevelopment project.

Figure 1

PROPOSED STATE STREET/ADAMS STREET BRIDGE AND
CONCEPTUAL DESIGN FOR CALUMET STREET FROM BRIDGE STREET TO PINE STREET
AND PROVISION OF RAILWAY GRADE SEPARATION NEAR MARKET STREET



NEW ROUTING OF STH 11 FOX RIVER BRIDGE

The City of Burlington also requested that the Commission staff review the routing of STH 11 over the Fox River. The additional bridge would be provided as a new route of STH 11 and would be constructed prior to the construction of the Burlington Bypass currently programmed for the year 2007. The STH 11 route is the principal route into, and through, the City of Burlington from eastern Racine and Kenosha County and IH 94. Upon construction of the Burlington area bypass, the STH 11 route would remain an arterial, and a principal route into the City of Burlington. The route of STH 11 into the City of Burlington has two 90 degree turns as it transitions from routing over State Street west of the Fox River to Jefferson Street east of the Fox River.

An alternative route proposed by the City, as shown on Figure 1, would extend the STH 11 route directly over State Street from Main Street to the Fox River, and on a structure with a transitional alignment to connect to Adams Street at Calumet Street. The advantages of this STH 11 alignment over the current alignment include elimination of two 90 degree turns, and the routing of arterial traffic at the southern boundary of, rather than through, the proposed riverfront redevelopment. The estimated construction cost of the new route is \$1.5 million and may entail acquisition of one commercial and one institutional building and one residence. The current STH 11 Jefferson Street bridge requires replacement at an estimated cost of \$1.0 million. An alternative route utilizing State Street west of the Fox River may reduce construction costs by about 10 percent, but increase property acquisition, route arterial traffic through the proposed riverfront development, and require a new at-grade railway street crossing. An alternative route utilizing Madison Street west of the Fox River would likely increase construction costs by about 15 percent and increase property acquisition, route arterial traffic through the proposed riverfront development, and require a new at-grade railway street crossing.

With the construction of a new STH 11 bridge on a route from State to Adams Street, the existing Jefferson Street bridge, and Jefferson Street between Main Street and Milwaukee Street, may continue to function as an arterial providing essential traffic carrying capacity over the Fox River until the construction of the bypass. Upon construction of the bypass, Jefferson Street may function as more of a collector facility, providing better access to the central business district.

ROUTE OF STH 11 WEST OF CENTRAL BUSINESS DISTRICT

The City of Burlington also requested that the Commission staff review the revision of the routing of STH 11 west of the central business district. STH 11 currently operates as a one-way pair with Chestnut Street and Commerce Street between Origen Street and Milwaukee Street. The City-proposed change would eliminate the one-way pair and route STH 11 in both directions over Commerce Street between Milwaukee Street and Origen Street, and provide a new extension of Commerce Street to connect with Chestnut Street west of Origen Street as shown on Figure 2. This would permit STH 11 to operate with only one turn within the City of Burlington. The estimated cost of the street extension is \$300,000, and is consistent with a City proposed redevelopment plan.

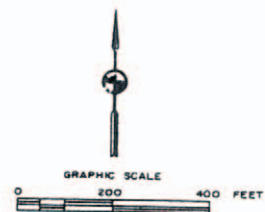
Figure 2

PROPOSED NEW CHESTNUT STREET/COMMERCE STREET CONNECTION



LEGEND

-  New Roadway
-  Existing Roadway To Be Removed



Source: SEWRPC

SUMMARY AND RECOMMENDATIONS

Upon the request of the City of Burlington, the Regional Planning Commission staff conducted a review of the arterial street and highway system recommendations for the Burlington area of the year 2010 regional transportation system plan and Racine County jurisdictional highway system plan. The principal plan recommendation for highway capacity improvement and expansion is the construction of a bypass around the eastern and southern sides of the City of Burlington area. The bypass may be expected to resolve all of the existing and potential future substantial traffic congestion problems in the Burlington area. The bypass, however, is not programmed for construction by the Wisconsin Department of Transportation until the year 2007. While the bypass may be expected to resolve the City's traffic congestion problems, it may not provide sufficient capacity and redirection of traffic to permit the current one-way street pattern within the City of Burlington to be eliminated.

The Commission staff reviewed the potential to convert Calumet Street to an arterial street and to improve it to a four traffic lane divided arterial as proposed by City of Burlington officials as part of a riverfront redevelopment project bounded approximately by Bridge Street on the north, the Fox River on the east, Adams Street on the south, and Calumet Street on the west. The new Calumet Street arterial would extend from a direct connection to Bridge Street to a direct connection with Pine Street at Market Street. Calumet Street would be grade separated from the Wisconsin Central Transportation Corporation Railway line. The railway line carries approximately 26 trains per day and has a significant traffic volume crossings, including 13,400 vehicles per average weekday on STH 36, 9,800 vehicles per average weekday on Bridge Street, and 16,900 vehicles per average weekday on STH 11. The addition of the traffic carrying capacity of Calumet Street may be expected to permit Pine Street and Dodge Street to operate as two-way two-lane streets under current and future year 2010 conditions. The City of Burlington officials also requested the Commission staff to review the current route of STH 11 over the Fox River. The proposed change in route would eliminate two 90 degree turns and avoid the routing of a arterial facility through the proposed redevelopment project. The City of Burlington officials also requested that the Commission staff review the conversion of the current one-way pair routing of STH 11 west of the central business district, to a two-way routing over Commerce Street. This revised routing would eliminate not only the one-way routing, but also the need for several turns within the central business district.

It is recommended that Calumet Street as a four-lane arterial from Bridge Street to Pine Street at Market Street be added to the regional transportation system plan, and that the proposed reroutings of STH 11 be added to the plan as well. The revised year 2010 regional transportation system plan and Racine County jurisdictional highway system plan for the Burlington area is shown on Map 3. As it is anticipated that these improvements, including the addition of Calumet Street and its extension and the rerouting of STH 11 will be expected to occur prior to the implementation of the bypass, the interim recommended arterial street system and state trunk highway system, until the construction of the bypass, is shown on Map 4.

* * *

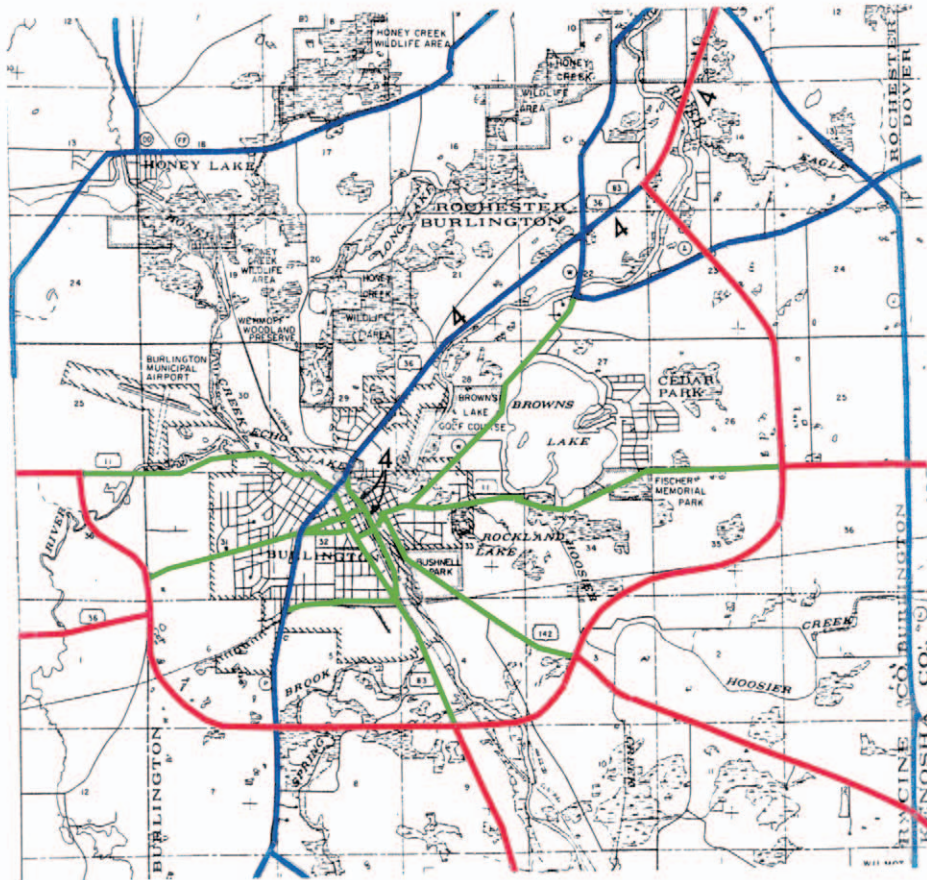
PCE/KRY/rj

9/29/97

TRNS/RACJHSP.Mem

Map 3

RECOMMENDED AMENDED YEAR 2010 REGIONAL TRANSPORTATION SYSTEM PLAN AND
RACINE COUNTY JURISDICTIONAL HIGHWAY SYSTEM PLAN FOR THE BURLINGTON AREA



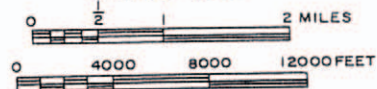
LEGEND

- State Trunk Highway
- County Trunk Highway
- Local Trunk Highway

4 Number of Traffic Lanes
(Two Where Unnumbered)

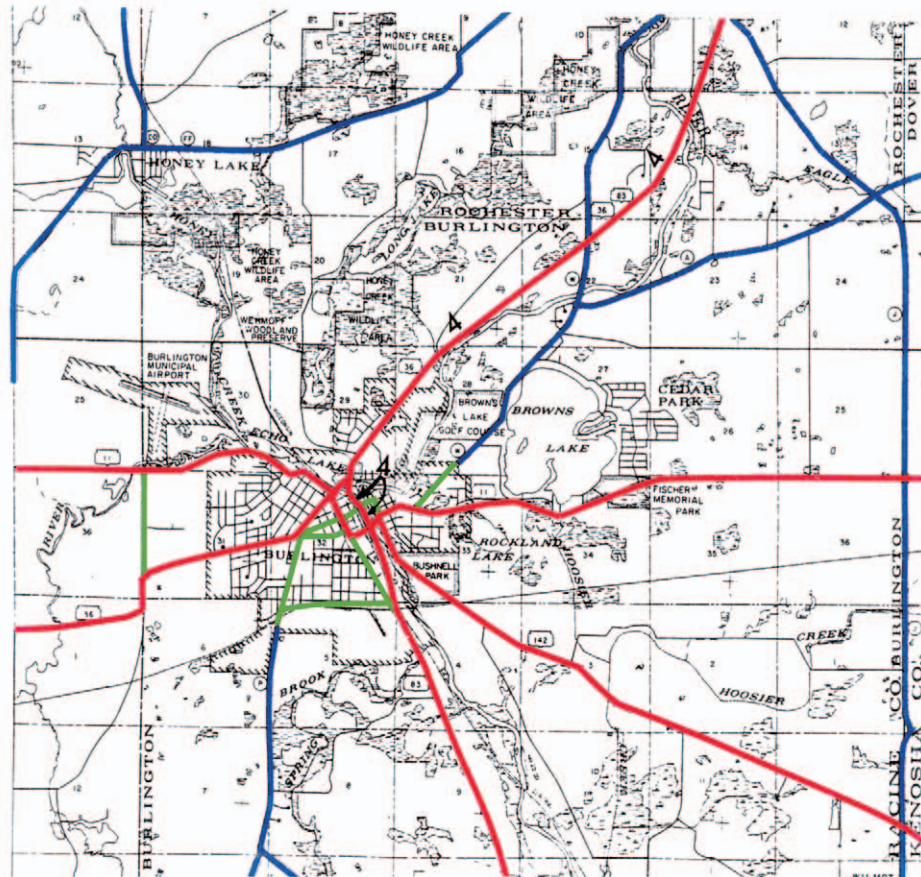


GRAPHIC SCALE



Map 4

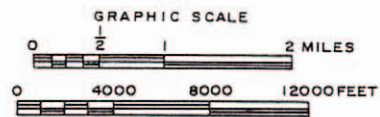
RECOMMENDED INTERIM JURISDICTIONAL CLASSIFICATION OF ARTERIAL STREET
AND HIGHWAY SYSTEM PRIOR TO CONSTRUCTION OF THE BURLINGTON AREA BYPASS



LEGEND

- State Trunk Highway
- County Trunk Highway
- Local Trunk Highway

4 Number of Traffic Lanes
(Two Where Unnumbered)



Source: SEWRPC